AMS/FAST CHANGE REQUEST (CR) COVERSHEET

Change Request Number: 16-44

Date Received: Mar 24, 2017

Title: Revised FAST Policy to incorporate new AIT organizational changes and replace non-NAS with Mission Support.

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Policy and Guidance: (check all that apply)

- ☒ Policy
- ☐ Procurement Guidance
- ☐ Real Estate Guidance
- ☐ Other Guidance
- ☐ Non-AMS Changes

Summary of Change: Revise non-NAS routings for AIT departments; replace non-NAS with Mission Support.

Reason for Change: FAA reorganization determined new organizational codes, department descriptions were to be implemented within AIT.

Development, Review, and Concurrence: ATAI - Technical Analysis Investment Team, AAP-1/100, and ASAG.

Target Audience: Non-NAS programs following the AMS Acquisition Policy within AIT.

Briefing Planned: Yes.

ASAG Responsibilities: Review and comment.

Section / Text Location: AMS Policy Sections 1.2.2; 1.2.4; Table 1.2.15-1;
Sections 2.3.1; 2.3.3.1;
Sections 2.4.1; 2.4.3; and
Appendix A

The redline version must be a comparison with the current published FAST version.

(•) I confirm I used the latest published version to create this change / redline

or

( ) This is new content

Links: http://fast.faa.gov/AMS_Policy.cfm

Attachments: Redline and final documents.

Other Files: N/A

Redline(s):

Section Revised: 1.2.2 FAA Enterprise Architecture

Section Revised: 1.2.4 Portfolio Management

Section Revised: 1.2.15 AMS Lifecycle Management Documentation

Acquisition Management Policy - (~~1/2017~~4/2017)

1.2 Key Elements of Acquisition Management

1.2.1 Strategic Planning, Management, and Budgeting **Revised 1/2014**

The Government Performance and Results Act of 1993, requires Federal agencies to have measurable performance targets tied to agency goals and objectives. These targets serve as the basis for planning capital investments and measuring progress.

The FAA supports this requirement through a strategic management process that forecasts the future aviation environment and captures goals, objectives, and performance targets in its strategic plan, currently FAA strategic initiatives. FAA strategic planning links the long-range vision and goals for the agency directly to the service needs of customers and defines top-level performance measures and multi-year performance targets.

The NAS Concept of Operations specifies the operational capabilities that the National Airspace System will have over time. Together, the FAA strategic plan and NAS Concept of Operations set the primary context for the FAA Enterprise Architecture and all lower-level plans and budgets within the agency. FAA lines of business and staff offices align their planning to the goals and objectives in FAA strategic planning. Service organizations within the lines of business in turn align their business and operating plans to line-of-business planning. These relationships are illustrated in Figure 1.2.1-1 FAA Strategic Planning, Management, and Budgeting.

Figure 1.2.1-1 Strategic Planning, Management, and Budgeting

Service organizations develop integrated business plans and budgets across all appropriations to achieve full lifecycle support of service delivery. Planning is realistic within budgetary constraints. Success or failure in achieving performance goals influences future planning and budgeting decisions. Resources are dedicated to key activities such as service analysis, concept and requirements definition, and investment analysis.

The Administrator approves the FAA strategic plan; the NextGen Management Board approves the NAS Concept of Operations; the Joint Resources Council approves the FAA Enterprise Architecture.

The Chief Financial Officer formulates the budget across lines of business and staff offices; tracks actual performance against planned execution based on input from these organizations; records approved resource adjustments to FAA plans and budgets; and incrementally moves FAA planning and budgeting forward each year. The Chief Financial Officer also develops the Facilities and Equipment (F&E), Research, Engineering, and Development (RE&D), and Operations (OPS) budget requests.

Planning for the Airport Improvement Program is coordinated with planning for the RE&D, F&E, and OPS appropriations so that capital assets necessary to support new and expanded airport operations are available when needed.

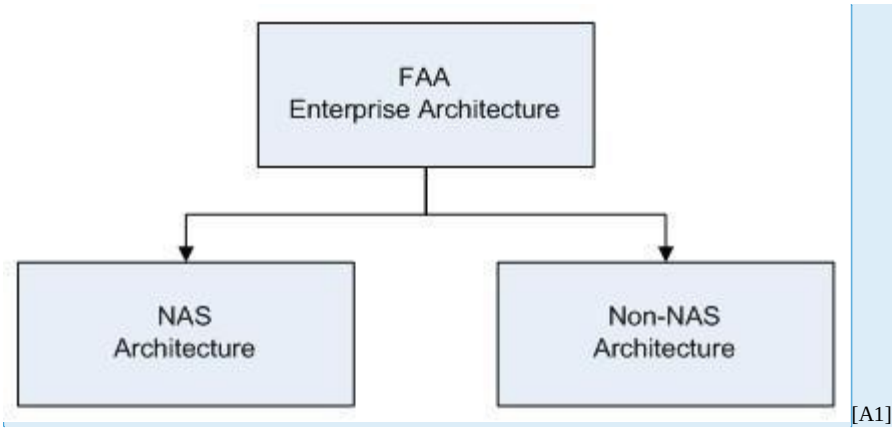
The FAA reports facility and equipment expenditures to Congress in the Capital Investment Plan; research, engineering, and development resource requirements in the National Aviation Research Plan; and operations funding requirements in the annual budget request to Congress.

1.2.2 FAA Enterprise Architecture Revised ~~1/2015~~4/2017

The FAA Enterprise Architecture (referred to as the enterprise architecture throughout AMS policy) defines the operational and technical framework for all capital assets of the FAA. It describes the agency's current and target architectures, as well as the transition strategy for moving from the current to the target architecture. The enterprise architecture is approved annually by the Joint Resources Council in support of FAA budget and strategic management processes.

The enterprise architecture has two components: the National Airspace System (NAS) architecture and the ~~non-NAS~~ Mission Support architecture (See Figure 1.2.2-1 FAA Enterprise Architecture). The NAS architecture is comprised of the systems, people, and procedures necessary for command and control of the National Airspace System. It also includes mission-support systems that manage or design command and control components and air traffic procedures. The ~~non-NAS~~ Mission Support architecture is comprised of the information technology operations and investments needed for agency business administration and planning. It includes all mission-support applications, systems, policies, and procedures not directly involved in air traffic control.

Figure 1.2.2-1 FAA Enterprise Architecture



[A1]

The FAA Enterprise Architecture Board governs the enterprise architecture. The Chief Information Officer maintains it. The Enterprise Architecture Service Division administers the NAS architecture. The Office of Information & Technology, ~~Strategy & Performance~~Solution Delivery

Service, ~~EA~~ Solution Strategy Division, Enterprise Architecture (EA) Branch administers the ~~non-NAS~~ Mission Support architecture.

1.2.3 Service Management Revised 7/2013

Acquisition management policy is structured to apply FAA investment resources to the cost- effective delivery of safe and secure services to its customers. The delivery of these services is accomplished through service organizations, which are responsible and accountable for lifecycle management of service delivery.

A service organization is any organization that manages investment resources, regardless of appropriation, to deliver services. It may be a service unit, program office, or directorate, and may be engaged in air traffic services, safety, security, regulation, certification, operations, commercial space transportation, airport development, or administrative functions.

Service organizations bring together the stakeholders and specialists necessary to plan, obtain, manage, and sustain assigned services throughout their lifecycle. A service may be delivered directly to a customer, such as flight planning for general aviation, or to other service organizations that deliver end services to customers. Together, service organizations span the spectrum of FAA activity and responsibility.

Service organizations manage service delivery by means of integrated portfolios of capital investments and operational assets. These portfolios includes investment assets under acquisition; fielded equipment, legacy systems, infrastructure, and facilities; and all other types of resources.

Service organizations perform service analysis annually to determine what capabilities must be in place now and in the future to meet agency goals and the service needs of customers and to move planning forward each year. Results are captured in enterprise architecture roadmaps, which are the transition plans for moving the current "as is" architecture to the future "to be" state. These roadmaps are the foundation for line-of-business and staff office business plans, which in turn are the basis for service organization operating plans.

The operating plan of each service organization specifies how it will manage its operational assets and investment initiatives over time to sustain and improve service delivery. Each operating plan is maintained on a continuing basis and updated yearly to reflect progress against plan, Congressional or executive direction, emerging customer needs, and critical aviation incidents. Service organizations track performance, accomplishments, and resource expenditures relative to the operating plan, and take corrective action as necessary to achieve agreed upon goals and objectives. Service organizations work closely with each other to manage shared assets efficiently and effectively.

1.2.4 Portfolio Management Revised ~~4/2013~~4/2017

The FAA views and manages its investment and operational assets through multiple levels and groupings of portfolios to ensure they work together efficiently to achieve agency strategic, mission,

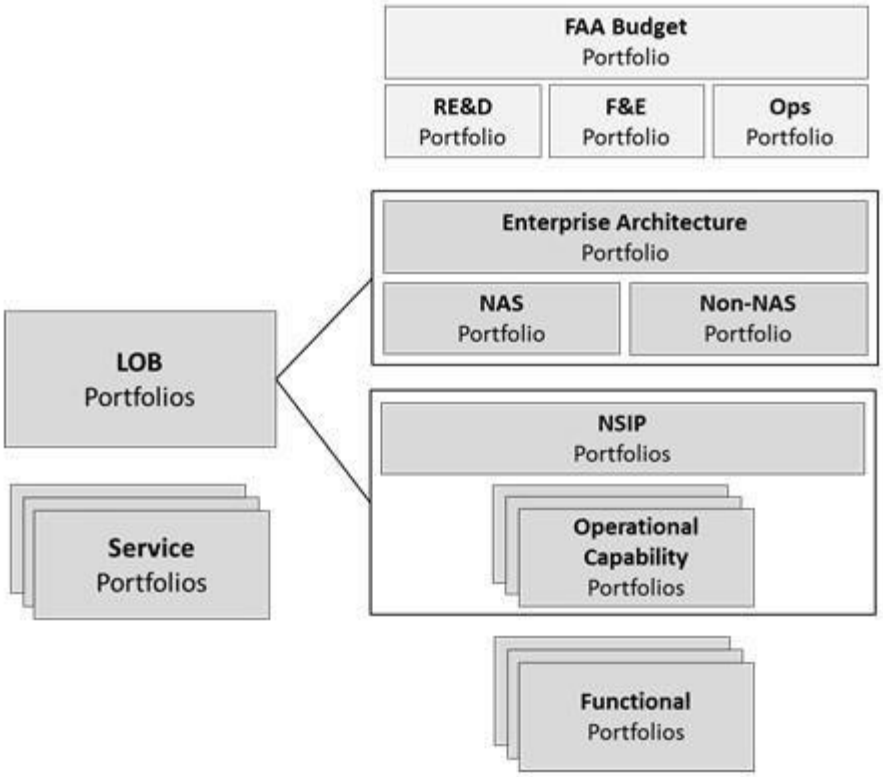
and service goals. At the agency level, the entire FAA budget is a portfolio of planned expenditures organized to balance support of existing operational services with investment in new capability. Within this portfolio, the R&ED, F&E, and Operations appropriations are distinct portfolios that allocate research, investment, and operational funding to the most pressing service needs of the aviation community. Similarly, the enterprise architecture is a portfolio with investments and assets that make up the National Airspace System (NAS) and administrative and mission support information technology (~~non-NAS~~ Mission Support). The enterprise architecture can be viewed as distinct portfolios segmented in different ways for specific purposes.

Operational capability portfolios are rational groupings of NAS investment programs proceeding through the AMS lifecycle management process that have critical interdependences which must be taken into account when making investment decisions for individual components of the portfolio.

The Joint Resources Council uses portfolio management in conjunction with strategic planning, the enterprise architecture, and outcome-based performance measures when making investment decisions and managing selected groupings of investments.

AMS policy does not create a universal definition for the term "portfolio management." It establishes the definition and policy for several standard agency-wide portfolios (Section 1.2.4.1) and for operational capability portfolios (Section 1.2.4.2). This policy does not preclude other types of portfolios within the agency, nor does it provide policy or guidance for managing them. Figure 1.2.4-1 illustrates the levels and groupings of FAA portfolios.

Figure 1.2.4-1 Portfolio Management in FAA



1.2.4.1 Agency-Wide Portfolio Management **Revised 4/2013**

The FAA implements agency-wide portfolio management at multiple organizational levels and within a unified functional framework:

Corporate Portfolio Management - The FAA, through the Joint Resources Council and other means, manages the overall agency investment portfolio with the following:

Enterprise Architecture: The enterprise architecture portrays the "as is" and "to be" state of FAA operational assets along with roadmaps that lay out over time what investments will be made to achieve the end-state configuration. The enterprise architecture is developed and updated annually by analyzing the functions the FAA needs to provide based on identified gaps in needed services over time. This view of the corporate-level portfolio is presented to the Joint Resources Council each year for approval.

FAA Budget: The budget is developed using a strategic management process that ties it to the needs in the enterprise architecture and the goals in the FAA strategic plan to create a unified performance-based budget. The budget is reviewed each year considering several corporate-level portfolio measures including progress in meeting FAA strategic goals, budget allocations relative to strategic planning targets, and assessments of under-performing programs using earned value management. This information is presented to the Joint Resources Council annually when it reviews the agency budget submission.

Line-of-Business Portfolio Management - Each line of business and staff office oversees, coordinates, and integrates the service portfolios of its service organizations to achieve the greatest overall contribution to agency strategic goals and targets.

Service Portfolio Management - Service organizations (e.g., terminal services, en-route and oceanic services, regulatory services, certification services) manage integrated sets of investment and operational assets to optimize service delivery over time.

NAS Segment Implementation Portfolio Management - The NextGen organization oversees investment portfolios that cut across service organizations to provide fully integrated operational capabilities for the National Airspace System in such areas as precision-based navigation and improved runway operations. More than one service organization may be involved with implementation and in-service management of these investment packages.

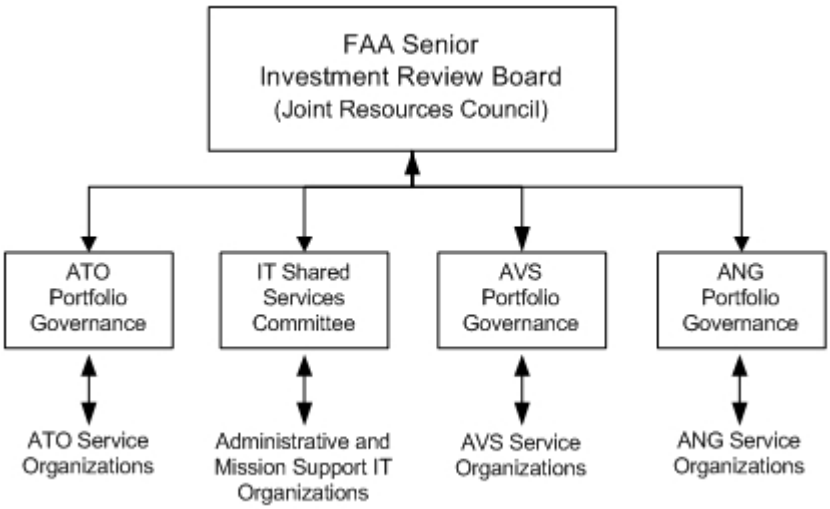
Functional Portfolio Management - The NextGen organization oversees investment packages that cut across service organizations to provide fully integrated functional capability for the National Airspace System in such areas as weather, surveillance, communications, automation, and navigation. More than one service organization may be involved with implementation and in-service management of these investment packages.

1.2.4.1.1 Portfolio Management Governance **Revised 4/2013**

Figure 1.2.4.1.1-1 portrays portfolio management governance within FAA.

Figure 1.2.4.1.1-1 FAA Portfolio Management Governance

(*representative depiction*)



The Joint Resources Council oversees the FAA investment portfolio as expressed in the enterprise architecture, FAA budget, and individual service portfolios. It evaluates the performance of all investment programs and operational assets within each service against quantified baseline measures. Planned initiatives for new investment are discussed along with proposals to remove, replace, or improve operational assets with declining performance that no longer satisfy service need or are nearing the end of their service life. The Joint Resources Council aligns and coordinates investment activity across the lines of business through annual review and approval of the enterprise architecture and agency budget submissions to Congress.

Line-of-Business portfolio governance aligns and coordinates investment activity across service organizations within a line of business or staff office. This governance ensures investment and operational resources support priority FAA strategic and performance goals; ensures there is no overlap, redundancy, or gap in service delivery; and reviews progress, tracks baseline variances, and monitors remedial planning and execution within service portfolios. Specifically, Air Traffic Organization (ATO) governance oversees, reviews, and coordinates service portfolios related to the National Airspace System and the provision of air traffic control services (e.g., terminal, en- route, and technical operations). NextGen (ANG) and Aviation Safety (AVS) governance oversee and recommend investment portfolios within their line of business.

The Information Technology Shared Services Committee reviews, oversees, and recommends administrative and mission support information technology investment portfolios.

Service organizations manage service delivery within their service area of responsibility. They evaluate service demand on a continuing basis and recommend changes to the service portfolio over time to optimize service delivery.

1.2.4.1.2 Portfolio Management Criteria **Revised 4/2013**

The FAA has standard criteria for selecting, controlling, and evaluating its investment portfolio. The Joint Resources Council uses the standard criteria when evaluating new investment opportunities for inclusion in a service portfolio, when evaluating the status of on-going investment programs, and when evaluating the efficiency and effectiveness of operational assets.

The three categories of portfolio management criteria are listed below. Details for some elements of these criteria are defined elsewhere in AMS (e.g., earned value management policy is in Section 4.16 and the standard selection criteria are located in FAST).

Selection criteria: The Joint Resources Council applies the following standard quantitative and judgmental selection criteria to assess the relative contribution of investment options for inclusion in an investment portfolio: benefits; lifecycle cost; benefit to cost ratio; consistency with the enterprise architecture; impact on FAA strategic goals; and risk.

Control criteria: The FAA employs earned value management, risk management, and testing to determine how efficiently developmental, modernization, and enhancement investment programs are

performing relative to plan during solution implementation. For investment programs that do not involve development, modernization, or enhancement, the FAA applies multiple control techniques such as independent review of program cost and schedule estimates; comparison of spend plans against budget authorization; comparison of actual cost and schedule results against planning estimates; and periodic program and data reviews against planning. These management controls identify and quantify variances to baseline cost, schedule, and performance measures as the basis for corrective action. Service organizations test and evaluate the products of investment programs against requirements in the program requirements document to determine whether they are satisfied.

Evaluation criteria: The FAA periodically measures the efficiency (technical quality) and effectiveness (business value) of operational assets to determine whether they should be upgraded, replaced, or removed from service. Service directorates evaluate in-service assets by means of post-implementation reviews and operational analyses. Post-implementation reviews determine whether performance, cost, schedule, and benefit goals are being attained. They provide the basis for corrective action, as well as lessons learned for improving agency investment management processes. Operational analysis determines trends in such factors as reliability, maintainability, supportability, obsolescence, and operating and maintenance costs. They are the basis for validating continued support for fielded assets or some other action such as upgrade, replacement, or removal from service.

1.2.4.2 Operational Capability Portfolios **Revised 4/2013**

The NextGen Management Board establishes operational capability portfolios to achieve priority NAS performance and operational goals subject to concurrence by the Joint Resources Council. When an individual investment increment of the portfolio comes before the Joint Resources Council for investment decisions, the portfolio manager is present so decisions are made within context of the entire portfolio and overall corporate framework.

An operational capability portfolio may contain materiel (e.g., hardware or software deliverables) and non-materiel (e.g., airspace redesign or procedures) components. Each investment increment must receive an acquisition category designation from the Acquisition Executive Board and is managed through the AMS lifecycle according to its designation.

An operational capability integration plan (OCIP) approved by the executives responsible for each investment increment of an operational capability portfolio defines the critical interdependencies between investment increments, how they will be managed, and their interaction with each other and the overall portfolio. The OCIP specifies how cost, schedule, or performance issues will be communicated to other portfolio investment increments and how they will be resolved corporately for the benefit of the portfolio. A standard template is used to develop the OCIP, which includes measures for tracking and evaluating the portfolio (e.g., portfolio costs and benefits).

1.2.5 Acquisition Categories **Revised 4/2013**

Acquisition categories ensure the appropriate level of oversight and documentation requirements are applied to each FAA investment program. Acquisition categories apply to all investment programs, appropriations, and FAA organizations. This includes all capital investments in the National Airspace System and FAA administrative and mission support systems and services. The Joint Resources Council is the investment decision authority for all acquisition categories.

Investment programs are classified by investment type (new investment, technology refreshment, variable quantity, facility initiative, or support service contract) and then categorized based on qualitative and quantitative criteria. Definitions for investment type and criteria for acquisition categories are in the AMS Table of Acquisition Categories. Review organizations for investment decisions and tailoring for required documentation vary by investment type and acquisition category, as defined in the AMS Table of Acquisition Categories.

The sponsoring service organization recommends an acquisition category to the Acquisition Executive Board, which makes the categorization decision and notifies the Joint Resources Council for confirmation through the JRC Executive Secretariat. The designation of acquisition category is made before the investment analysis readiness decision. A standard readiness process applies to all acquisition category levels for AMS decision points.

1.2.6 Lifecycle Management Decision-Making Revised 7/2013

Table 1.2.6-1 specifies the decision authority for each AMS lifecycle management decision point. The Joint Resources Council is the FAA senior investment review board. It makes corporate-level resource decisions, including authorization and funding for investment programs, and approves changes to the enterprise architecture. The Joint Resources Council selects for approval and funding those investment opportunities having the highest potential for contributing to FAA strategic and performance goals, improving service delivery, increasing aviation safety, lowering operating costs, or otherwise providing value to the FAA and its customers. The Joint Resources Council may approve, disapprove, modify, or terminate an investment initiative at any AMS decision point.

The Joint Resources Council approves investment resources, regardless of appropriation, in useful and manageable segments (e.g., development, demonstration, production, deployment, and operations). Each segment is managed within cost, schedule, and performance targets in the acquisition program baseline approved by the Joint Resources Council at the final investment decision. The portfolio manager attends all lifecycle management decision points involving each investment increment of an operational capability to disclose the impact on an end-state capability of not approving an investment increment.

The service team or program office must complete all phase activities and artifacts to qualify for a decision to proceed to the next lifecycle management phase, but can return to the Joint Resources Council at any time including the next decision point if the recommendation is to terminate the effort.

The Air Traffic Services Committee reviews all JRC investment decisions for procurement of air traffic control equipment of $100,000,000 or more in facilities and equipment costs.

Table 1.2.6-1 Lifecycle Management Decision-Making

Decision	Decision Body	Decision Chair
Concept and requirements definition readiness decision	FAA Enterprise Architecture Board	None
Investment analysis readiness decision	JRC	Acquisition Executive
Initial and final investment decisions *(including new programs and extension of current capability)*	JRC	Acquisition Executive
Product demonstration 1	Note 2	Note 2
Production 1 and 2	Note 2	Note 2
In-service 2	Note 2	Note 2
Program baseline change	JRC	Acquisition Executive
F&E, RE&D, and OPS budget approvals	JRC	Acquisition Executive
FAA Enterprise Architecture changes	JRC	Acquisition Executive

1 Decision required for developmental products. See AMS section 2.6.1.
2 The Joint Resources Council designates the product demonstration, production and in-service decision authorities at the final investment decision. If the JRC retains any of these decisions, the chair is the Acquisition Executive.

The JRC Executive Secretariat supports the Acquisition Executive and Joint Resources Council in executing decision-making responsibilities. The Secretariat ensures service organizations have complied with AMS policy requirements before seeking JRC approval. The Secretariat also manages the JRC decision-making processes and acquisition quarterly program reviews on behalf of the Acquisition Executive.

Service organizations make and are accountable for all service-level management decisions except those explicitly assigned otherwise by this policy or the Joint Resources Council.

1.2.7 Acquisition Quarterly Program Reviews **Revised 4/2013**

The Joint Resources Council reviews investment programs at acquisition quarterly program reviews to oversee cost, schedule, and technical performance using a standard set of program and performance measures (see AMS 2.1.6). These standard program measures are organized into: financial, schedule, technical, resources, program manager assessment, and external interests. The status of OMB Information Technology Dashboard milestones is also reviewed along with significant program risks. The Directors of each service organization present and discuss performance for all baselined programs and those planning programs that report to the Office of Management and Budget. The reviews use SPIRE, earned-value management (or equivalent), and enterprise architecture data to assess technical, cost, and schedule issues that may impact the ability of programs to meet their acquisition program

baseline values. The portfolio manager is present at the reviews to discuss the impact on an operational capability of cost, schedule, or performance shortfalls among capability investment increments and to present for consideration potential baseline adjustments among increments, when applicable.

1.2.8 TechStat Reviews Revised 4/2013

The FAA uses TechStat reviews when appropriate to assess underperforming investment programs. A TechStat review is an in-depth examination of program performance data from the OMB Information Technology Dashboard and SPIRE, including associated earned value management data, program management and control data, and actions for achieving the JRC- approved program baseline. The TechStat review results in a corrective action plan to improve program execution and performance within the approved program baseline, or results in other actions if the program is unlikely to improve as baselined. The Joint Resources Council determines whether a TechStat review will be conducted, and uses acquisition quarterly program reviews and investment decision meetings to identify those programs that will be subject to a TechStat review.

1.2.9 Cost Accounting Revised 4/2013

The FAA uses a financial management system that integrates planning, budgeting, and accounting across service organizations and appropriations. Cost accounting provides the financial basis for determining whether the FAA is meeting its performance goals within baseline costs and for determining the actual cost of service delivery.

Cost categories include all activities necessary for full lifecycle management of service delivery, including research, service analysis, concept and requirements definition, investment analysis, solution implementation, operations and support, and decommissioning. The FAA standard lifecycle work breakdown structure, cost accounting system, and labor distribution report are aligned to use the same cost categories and activities.

1.2.10 Workforce Development and Qualification Revised 4/2013

The FAA manages its human capital as a critical investment to ensure the agency has the capabilities it needs to achieve business goals. The FAA Acquisition Workforce Council, comprised of executives with acquisition responsibilities from across FAA, sets acquisition workforce-related requirements and oversees implementation and annual update of FAA Acquisition Workforce Plan. The Director of Acquisition Policy and Oversight, who reports directly to the Chief Acquisition Officer, chairs the Acquisition Workforce Council and leads the acquisition career management function. AMS Section 5 contains policy related to the FAA acquisition career program and associated competency, training, and certification requirements for personnel in key acquisition positions.

1.2.11 Continuous Improvement Revised 7/2010

The FAA continually improves its policies and guidance to increase the safety, capacity, efficiency, and effectiveness of agency services. It does this through periodic comparison with the best practices of industry and other government organizations. The FAA integrates into its policy and guidance successful practices that save time, reduce cost, and improve customer satisfaction.

1.2.12 On-line Policy and Guidance Revised 1/2012

The FAA Acquisition System Toolset (FAST) is the official record of the Acquisition Management System. It is an information system available via the Internet at http://fast.faa.gov. FAST contains official lifecycle acquisition management policy and guidance, process flowcharts, contract clauses, document templates and instructions, checklists, practices, and other job-related aids for use by the workforce.

1.2.13 AMS Change Management Revised 1/2012

The Acquisition Executive Board reviews and authorizes development and implementation of acquisition management policy, guidance, processes, practices, procedures, and tools. The Acquisition Executive Board also directs and oversees the Acquisition System Advisory Group (ASAG).

The ASAG is a cross-organizational body that evaluates proposed changes to acquisition management policy and guidance to ensure:

- Changes contribute to FAA strategic goals;
- Policy is streamlined and effective;
- Best practices from industry and government are incorporated when beneficial;
- Information is consistent and compatible across functional disciplines;
- Quality is maintained and improved; and
- A consistent enterprise-wide view of policy.

The ASAG initiates changes or establishes working groups to develop new policy or guidance, as required. It also periodically reviews existing policy for effectiveness. Anyone may propose changes to acquisition management policy or guidance by submitting the change to their ASAG representative, who processes it in accordance with AMS change management procedures. Originators develop proposed changes in conjunction with primary users of the policy or guidance, or in the case of a complex change, with an ad hoc workgroup.

The Administrator approves significant changes to acquisition management policy via the Acquisition Executive. The Acquisition Executive approves all other policy changes. The Director, Acquisition Policy and Oversight approves guidance changes. Approved changes are incorporated into FAST quarterly. The acquisition policy change manager maintains FAST.

1.2.14 Legal Coordination Revised 7/2006

Service organizations coordinate with agency counsel on competitive acquisitions with an estimated total value greater than $100,000 and on non-competitive acquisitions with an estimated total value greater than $10,000. In addition, certain matters, described in Procurement Guidance (T1.15), require legal coordination regardless of their dollar value. FAA counsel also advises service organizations regarding legal issues and represents service organizations in litigation and other legal matters. Service organizations document the acquisition file with agency counsel's opinion and recommendations.

At Headquarters, the Assistant Chief Counsel for Procurement, and at Regions and Centers, the Region or Center Counsel, may make written exceptions to this coordination policy, adjust dollar minimums, or in appropriate cases, waive the coordination.

1.2.15 AMS Lifecycle Management Documentation Revised ~~7/2015~~4/2017

Table 1.2.15-1 summarizes the purpose, requirement, responsible organization, and approving official for required AMS lifecycle management planning and control documents. Appendix B contains detailed policy for investment program documents. Complete instructions and templates are in FAST. Click here to view tailoring guidelines by acquisition category.

Click here to view the official storage location of investment-related program documentation.

Table 1.2.15-1 AMS Lifecycle Acquisition Management Policy Planning and Control Documents

Agency-Level Strategic Planning Documents

Document	Purpose	Requirement	Responsible Organization(s)	Approving Official or Body
FAA Strategic Plan (currently FAA strategic initiatives)	Defines long-range vision and goals for the FAA Establishes top-level performance measures and multi-year performance targets for the FAA	Reviewed and updated annually	Strategy, Budget, and Planning Committee	Administrator
NAS Concept of Operations (ConOps)	Defines target operational capabilities of the National	Reviewed annually and updated as needed	Advanced Concepts &	NextGen Management Board

	Airspace System		Technology Development Office	
NAS Operational Requirements Document (ORD)	Specifies FAA operational services consistent with the NAS ConOps	Updated annually or as necessary to remain consistent with the NAS ConOps	Advanced Concepts & Technology Development Office ATO Operational Concepts and Requirements Lines of business	NextGen Management Board Concept Steering Group endorses
NAS Requirements Document	Specifies NAS functional and performance requirements derived from the NAS ORD	Updated annually or as necessary to remain consistent with the NAS ConOps and ORD	NAS Systems Engineering Services Advanced Concepts & Technology Development Office NAS Lifecycle Integration Office ATO Operational Concepts and Requirements Lines of business	NextGen Management Board NAS Systems Engineering Services endorses
FAA Enterprise Architecture	Defines the FAA target architecture and the transition strategy to reach the target Establishes the basis for service organization planning Defines the strategic investment plan for the FAA	Reviewed annually and updated as needed	Chief Information Officer Assistant Administrator for NextGen	Joint Resources Council

Portfolio-Level Documents

Document	Purpose	Requirement	Responsible Organization(s)	Approving Official or Body
Operational Capability Business Case (NAS)	Defines the rough costs and benefits of an operational capability	Required as the basis for establishing a new operational capability	Advanced Concepts and Technology Development Office ATO Program Management Office Investment Analysis & Planning Service organizations	NextGen Systems Engineering & Modeling
Operational Capability Integration Plan (NAS)	Defines the relationships, responsibilities, and agreements between all organizations contributing to the achievement of an operational capability	Preliminary plan required upon formation of a capture team Final plan required when all capability elements have entered concept and requirements definition	Portfolio manager Capture team	NextGen Management Board

Program-Level Documents

Document	Purpose	Requirement	Responsible Organization(s)	Approving Official or Body

Acquisition Program Baseline	Establishes the performance, cost, and schedule baselines for an investment program segment	Required for the final investment decision	Investment analysis team headed by the service organization with the mission need	Chair of the Joint Resources Council Designated ACAT reviewers
Program Requirements Document	Defines the operational framework and performance requirements an investment program must achieve	Preliminary document at the investment analysis readiness decision Revised document at the initial investment decision Final document at the final investment decision	Implementing service organization Operating service organization	ATO: Vice Presidents of the executing service organization during solution implementation and the operating service organization Non-ATO: Second-level executive of the executing service organization during solution implementation
Business Case	Provides the analytical and quantitative basis for investment decisions	Initial business case at the initial investment decision Final business case at the final investment decision.	Investment analysis team, headed by the service organization with the mission need	ATO: Vice President of the implementing service organization Non-ATO: Director of the implementing service organization Designated ACAT reviewers

Implementation Strategy and Planning Document	Defines overall implementation strategy and planning for an investment program	For the initial investment decision, alternatives analyzed and summarized comparatively for factors in select sections of the ISPD Complete ISPD is required for the final investment decision Reviewed annually	Implementing service organization Operating service organization	Chair of the Joint Resources Council ATO: Chief Operating Officer / Deputy Chief Operating Officer Non-ATO: Second-level executive of the organization executing during solution implementation Stakeholder organizations approve specific sections per the ISPD template Updated sections approved at the same level
Program Management Plan	Defines how the implementation strategy of the investment program will be executed during solution implementation	PMP required for the final investment decision Reviewed annually	Implementing service organization	Director, implementing service organization Updates approved at the same level
Test and Evaluation Master Plan	Describes the test strategy and scope of a test program Defines the test and evaluation methodologies that will be used to assess safety hazard controls	Preliminary document at initial investment decision Initial document at the final investment decision	Test and evaluation service organization(s)	Director of the test service organization Non-ATO: Second level executive of the organization executing during

	and mitigations and security risks	Final document after contract award or as defined in the ISPD		solution implementation For ~~Non NAS~~Mission Support IT programs: AIT, Solution Delivery Service
OMB Major IT Business Case	Budgetary document required by OMB for designated investment programs	Preliminary document at the initial investment decision Final document at the final investment decision	Investment analysis team Implementing service organization	ATO: Chief Operating Officer Non-ATO: Associate or Assistant Administrator of the line of business or staff office Acquisition Executive Chief Financial Officer Chief Information Officer Deputy Administrator concurs

1.2.16 OMB Budget Documentation **Revised 1/2015**

The OMB Major IT Business Case is a budget request document updated yearly and sent to Office of Management and Budget during the annual budget cycle for designated capital investment programs. Service organizations prepare the OMB Major IT Business Case, which is independently reviewed and scored by the Office of Information & Technology, Strategy & Performance Service, Investment Portfolio & CPIC Branch. The Chief Information Officer, Chief Financial Officer, and Acquisition Executive approve the OMB Major IT Business Case for designated information technology capital investments before submission to OMB. The Acquisition Executive and Chief Financial Officer

approve OMB Major IT Business Cases for designated non-information technology capital investments.

1.2.17 National Acquisition Evaluation Program **Added 7/2007**

The National Acquisition Evaluation Program provides oversight of FAA acquisition management through the evaluation of contracts, programs, and acquisition management practices. The goal is to ensure consistent implementation of AMS policy and guidance by FAA offices and to identify innovative processes or opportunities for improvements. Recommendations based on findings are tracked to closure to promote continuous process improvement and procurement integrity.

1.2.18 Earned Value and Baseline Management **Added 7/2013**

The Office of Management and Budget (OMB) directs all Government agencies to use an earned value management (EVM) system that complies with the industry EVMS Standard, American National Standard Institute, Electronic Industries Alliances-748, for capital investment programs involving development, modernization, or enhancement. Service organizations comply with this directive, which includes an integrated baseline review of cost and schedule projections within six months of contract award or program baseline approval. The earned-value management focal point reports quarterly the earned-value status of major investment programs to the Joint Resources Council.

Service organizations manage investment programs during solution implementation within controlled acquisition program baselines approved at the final investment decision. They take action to correct negative variance from any cost, schedule, or performance baseline measure. Negative variances that exceed 10 percent must be reported quarterly to the Joint Resources Council, along with an explanation of the cause(s), impact on service delivery, and a recovery strategy. The Administrator must notify the Congress of any program cost or schedule variance exceeding 50 percent and must either terminate the activity or justify why it should be continued and provide a recovery plan. When the Joint Resources Council determines an investment program cannot recover from a degenerating negative baseline variance, it may elect to rebaseline the effort by adding resources or changing its scope or schedule, or it may decide to terminate the activity.

Section Revised:
2.3 Service Analysis and Strategic Planning

Acquisition Management Policy - (~~1/2017~~4/2017)

2.3 Service Analysis and Strategic Planning Revised 4/2013

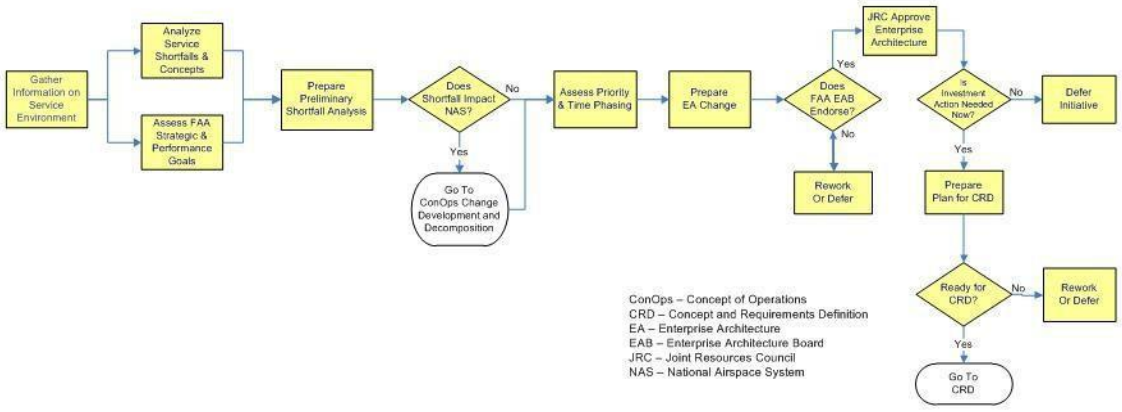
Service analysis and strategic planning determines what capabilities must be in place now and in the future to meet agency goals and the service needs of customers. Results are captured in the "as is" and "to be" states of the enterprise architecture, as well as the roadmaps for moving from the current to the future state. Results are also captured in line-of-business business plans and service organization operating plans, which specify how each will manage its RE&D, F&E, and OPS resources over time. These plans integrate new investment initiatives with the operation and support of fielded assets and other necessary actions to optimize service delivery. Continuing analysis keeps planning current with changes in the service and operational environment.

Industry best practices (e.g., technology and service demand forecasting, portfolio management, customer surveys) are employed during service analysis to align service outcomes with actions and activities necessary and sufficient to realize benefits for the FAA and its customers. Service analysis may lead to the refocus, reduction, or elimination of ongoing investment programs, and may identify new and more productive ways of doing business. It may also identify alternative paths for achieving service goals in a dynamic environment, and may identify opportunities for improving FAA strategic planning when the service environment evolves in ways not anticipated. Some investment opportunities may require research and development to demonstrate operational concepts, reduce risk, or define requirements before proceeding further in the lifecycle management process.

2.3.1 What Must Be Done Revised ~~10/2015~~4/2017

Figure 2.3-1-1 portrays the key activities of service analysis and strategic planning. These activities develop the information necessary for determining which service shortfalls or new ideas for improving service delivery are approved for inclusion in agency strategic planning documents. When a service shortfall impacts the National Airspace System, it enters the NAS ConOps change development and decomposition process (see Figure 2.3.1-2) to determine how it fits within the National Airspace System.

Figure 2.3-1-1 Key Activities of Service Analysis and Strategic Planning

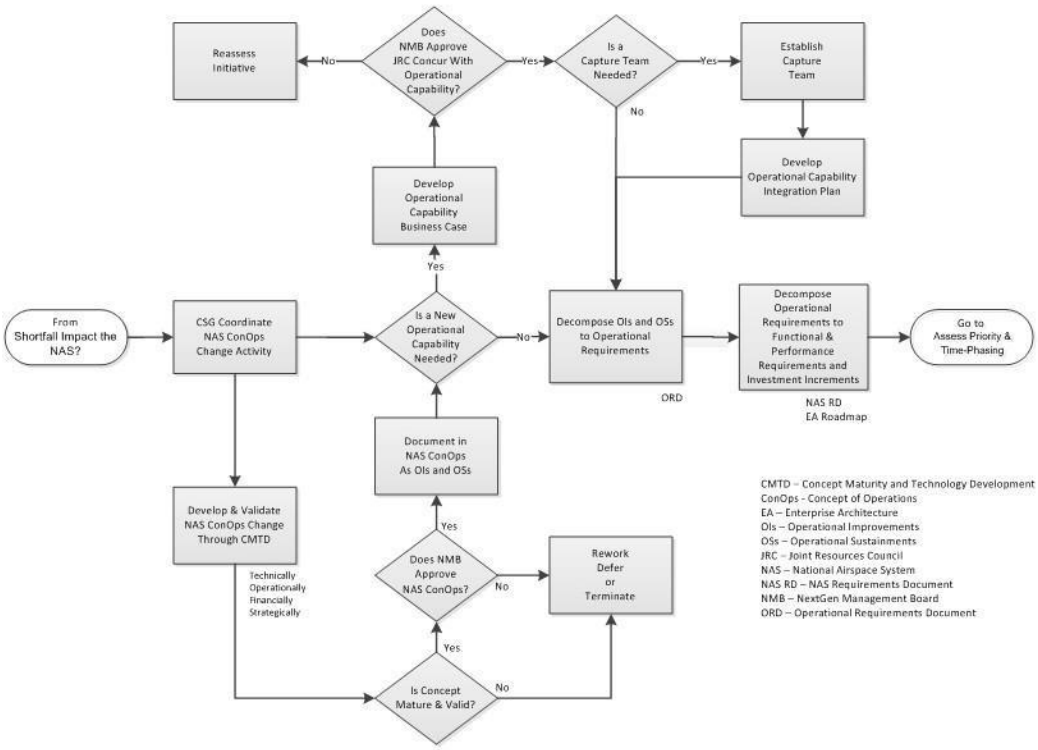


- **Gather Information on the Service Environment.** Service organizations analyze forecasts for aviation service needs and stay abreast of opportunities for improving service delivery as a basis for determining and prioritizing service needs and shortfalls. A continuing dialog with and feedback from customers (e.g., commercial air carriers, general aviation, air transport industry, state and local airport authorities) and users (air traffic and technical operations) are crucial, as is the supportability and operational outlook for fielded assets.
- **Analyze Service Shortfalls and Concepts.** Lines of business use service environment performance information to identify shortfalls and ideas for improving service delivery within their domain. Aviation research by NASA and other industry and government organizations may also identify emerging service shortfalls or technological opportunities for improving service delivery. This activity identifies business, technology, organizational, process, and personnel issues that affect service outcomes, as well as assumptions, risks, and dependencies.
- **Assess FAA Strategic and Performance Goals.** Service shortfalls or new ideas for improving service delivery should support current services or fulfillment of FAA strategic and performance goals. When they do not, the shortfall or new idea must be shown to have sufficient merit to warrant inclusion in agency strategic planning documents. Agency strategic plans and performance goals may also define service shortfalls that must be addressed in lower-level agency planning.
- **Prepare Preliminary Shortfall Analysis.** The service organization analyzes the shortfall or new idea as a foundation for understanding the problem and its urgency and impact. The shortfall is the difference between future service need and current capability. A service shortfall is usually addressed by a sustainment action for existing assets or a new service delivery idea including cloud services for predicted gaps. A new idea or concept should deliver existing services more efficiently or provide new services of value to the FAA and aviation industry. At this stage, the service shortfall is expressed as levels of service improvement, not by specific performance values.
- **Does Shortfall Impact the National Airspace System?** A new service need or shortfall that impacts the National Airspace System is assessed by means of the NAS ConOps Change Development and Decomposition Process (see Figure 2.3.1-2) to determine whether or how the NAS ConOps should be changed. Once NAS needs or shortfalls have been appropriately included in the NAS ConOps as operational improvements or sustainments, they move forward with ~~non-NAS shortfalls~~Mission Supportshortfalls to determine how they should be integrated within the FAA enterprise architecture.
- **Assess Priority and Time-phasing.** A new service shortfall or need must be shown to have sufficient merit to warrant inclusion in the enterprise architecture when evaluated against other service needs of the agency. The line of business works with the Technical Review Board (NAS) or the Architecture Review Board (~~non-NAS~~Mission Support) and other lines of business to determine how a new service need, technology refresh, or sustainment activity should be planned, time-phased, and integrated within the architecture relative to all other agency service needs. This activity may require rework of existing shortfalls and improvements already in the architecture.
- **Prepare Enterprise Architecture Change.** The service organization prepares change documents reflecting the service need or shortfall and submits them to the FAA Enterprise Architecture Board for endorsement. NAS service needs and shortfalls are expressed as operational improvements and operational sustainments.

- **Does FAA Enterprise Architecture Board Endorse the Change?** The FAA Enterprise Architecture Board determines whether and how to integrate new service needs within the enterprise architecture and its roadmaps. In making this determination, the board analyzes and assesses the new service need against all other service needs of the FAA using such criteria as contribution to agency strategic goals, monetary or performance benefits, compatibility with the enterprise architecture, risk, and political sensitivity. The decision to endorse and place a new service need, improvement, or sustainment within the enterprise architecture validates that this service need is an agency priority and warrants further action.
- **Joint Resources Council Approves the Enterprise Architecture.** The Joint Resources Council approves the FAA Enterprise Architecture annually. No service need can proceed further in the AMS lifecycle management process unless it is in the enterprise architecture approved by the JRC. Emergency needs not contained in the JRC-approved architecture may be presented to the FAA Enterprise Architecture Board by exception.
- **Rework or Defer.** Service needs, shortfalls, improvements, and sustainments not approved for inclusion in the enterprise architecture are reworked or deferred according to the direction of the FAA Enterprise Architecture Board or Joint Resources Council, as appropriate.
- **Is Investment Action Needed Now?** The investment increment enters concept and requirements definition at the appropriate time as determined by its time-phasing in the appropriate enterprise architecture roadmap.
- **Defer Initiative.** Investment action is deferred when action is not needed now to meet agency plans and schedules.
- **Prepare Plan for Concept and Requirements Definition.** NAS Systems Engineering Services (NAS) ~~or~~ Office of Information & Technology, ~~Strategy & Performance~~Solution Delivery Service, ~~EA~~ Solution Strategy Division ~~(non-NAS~~, EA Branch (Mission Support) works with the implementing and operating service organizations to prepare a plan for concept and requirements definition. This plan (1) specifies how tasks will be accomplished; (2) defines roles and responsibilities of participating organizations; (3) defines outputs and exit criteria; (4) establishes a schedule for completion; and (5) specifies needed resources. By signing the plan for concept and requirements definition, organizations that will do the work agree to provide the necessary resources.
- **Ready for Concept and Requirements Definition?** The FAA Enterprise Architecture Board makes the decision to enter concept and requirements definition or directs other action.
- **Rework or Defer.** The investment initiative is reworked or deferred when planning or organizational support is not sufficient to enter concept and requirements definition.

Figure 2.3.1-2 NAS ConOps Change Development and Decomposition Process

(Applies to the NAS only)



- **Concept Steering Group Coordinates NAS ConOps Change Activity.** The Concept Steering Group reviews the preliminary shortfall analysis to determine whether the service shortfall or new idea is addressed in the NAS ConOps. New shortfalls or ideas that are already within the scope of the NAS ConOps move to decomposition into operational requirements and investment initiatives after determining whether they should be incorporated into a new or existing operational capability. For shortfalls and ideas not addressed in the NAS ConOps, the Concept Steering Group coordinates discussion with the sponsor and the lines of business to determine what development or validation activity is needed.
- **Develop and Validate NAS ConOps Change Through Concept Maturity and Technology Development.** New ideas for improving NAS service or eliminating a shortfall must be validated to be technically and financially feasible, strategically aligned with agency goals and objectives, and have significant operational benefit to warrant inclusion in the NAS ConOps. The Concept Steering Group coordinates activity to develop and validate new ideas and concepts. Typically, the concept maturity and technology development process is applied to the point where technical risk is sufficiently low and potential benefits sufficiently high to justify inclusion. This activity includes safety and security assessments to identify and characterize any safety hazards and information security factors associated with the idea or concept.
- **Is Concept Mature and Valid?** The NAS ConOps is a stable document that evolves over time. Only the best high-value new concepts and ideas are added. The Concept Steering Group assesses development and validation results and records their findings and recommendations in a memorandum to the NextGen Management Board, which approves all changes to the NAS ConOps.

- **Does NextGen Management Board Approve NAS CONOPS?** The NextGen Management Board approves changes to the NAS ConOps. Changes are presented to the Joint Resources Council. Any JRC concerns or issues are resolved to ensure approved concepts are beneficial *and* affordable and supported by both management bodies.
- **Document Changes in NAS ConOps as Operational Improvements or Sustainments.** Service shortfalls and new concepts are documented in the NAS ConOps as operational improvements and operational sustainments.
- **Is a New Operational Capability Needed?** Grouping and managing operational improvements and sustainments with a high degree of interdependency may result in a high-value operational capability for the agency and aviation community. In such cases, one or more operational improvements will be organized and managed as a portfolio to ensure all essential elements of the operational capability are obtained and deployed.
- **Develop Operational Capability Business Case.** Advanced Concepts and Technology Development works with the ATO Program Management Office and Investment Planning & Analysis to develop a business case for the operational capability. The business case contains a rough estimate of the costs and benefits associated with developing and deploying the operational sustainments and improvements necessary to enable the operational capability. The PMO coordinates with ATO service organizations
to derive rough cost estimates for the work required to develop and deploy the investment increments necessary to achieve the operational capability. These same organizations derive a rough monetized estimate of benefits that will accrue to the FAA and aviation community when the operational capability is fully deployed. A preliminary assessment of risk, priority, affordability, and political sensitivity complete the business case.
- **Does NMB Approve and JRC Concur With the Operational Capability?** The NextGen Management Board decides whether to approve and establish the operational capability. The decision is based on the business case, contribution to agency strategic and performance goals, and affordability. The operational capability is implemented through its constituent investment increments approved and baselined individually by the Joint Resources Council. Obtaining these capabilities may require establishment of a capture team to integrate and coordinate activity by multiple program offices or service organizations providing the investment increments necessary to achieve the overall operational capability. By concurring with the NextGen Management Board decision, the Joint Resources Council acknowledges the operational capability and its constituent investment increments are agency priorities. The business case for the operational capability is a determining factor at future investment decisions for increments necessary to achieve the operational capability.
- **Reassess Initiative.** If the NextGen Management Board does not approve the operational capability, it may terminate the effort or recommend other activity to amend the concept or reduce risk. Any issues or concerns of the Joint Resources Council must be resolved before the operational capability is implemented.
- **Is a Capture Team Needed?** The NextGen Management Board decides whether to establish a capture team to coordinate the development, integration, and deployment of investment increments necessary to achieve an operational capability. In making this decision, the board evaluates the complexity and risk associated with the operational capability and the availability of resources. The capture team brings together cross- agency empowered representatives from each organization that must develop and deploy an investment increment

to achieve the operational capability. The objective is informed, integrated, and coordinated decision-making by all parties.

- **Establish Capture Team.** Each line of business that must contribute to achieve the operational capability provides an empowered representative to the capture team. The capture team monitors development, integration, and deployment of all elements of the operational capability, as well as plan and oversee a post-implementation evaluation to confirm that forecast benefits are being achieved or to define and implement corrective action when they are not.
- **Develop Operational Capability Integration Plan.** The team works with the portfolio manager to develop an Operational Capability Integration Plan (OCIP) that specifies responsibilities and agreements among all team members and organizations. The OCIP also defines the lifecycle plan, performance goals and measures, and operational benefits that will accrue from implementation of the operational capability.
- **Decompose Operational Improvements and Operational Sustainments to Operational Requirements.** A cross-organizational team with members from all lines of business and led by Advanced Concepts and Technology Development decomposes the NAS ConOps narrative of operational improvements and operational sustainments into NAS operational requirements. These requirements are recorded in the NAS Operational Requirements Document.
- **Decompose Operational Requirements to Functional and Performance Requirements and Investment Increments.** A cross-organizational team decomposes NAS operational requirements to NAS functional and performance requirements. These requirements are specified with sufficient detail for allocation to investment increments that will be undertaken to achieve the operational improvements and sustainments in the NAS ConOps. The goal is clear and unambiguous traceability of requirements from the NAS ConOps to the NAS Operational Requirements Document to the NAS Requirements Document and then to the program requirements document of specific investment increments. Each investment increment enters concept and requirements definition at the appropriate time as determined by their time-phasing in the enterprise architecture roadmap.

2.3.2 Outputs and Products **Revised 4/2013**

2.3.2.1 Service Analysis and Strategic Planning **Revised 4/2013**

- Preliminary shortfall analysis that describes qualitatively the service need, shortfall, and legacy assets;
- Enterprise architecture change notices, products, and amendments;
- Updates to the enterprise architecture; and
- Plan for concept and requirements definition.

Key work products are verified and validated according to the FAA AMS Verification and Validation Guidelines before the CRD readiness decision.

2.3.2.2 NAS ConOps Change Development and Decomposition **Revised 4/2013**

- White papers, research reports, and outputs from concept maturity and technology development;
- Updates to the NAS ConOps;
- Operational capability business case;
- Operational capability;
- Capture team;
- Operational Capability Integration Plan;
- Updates to the NAS Operational Requirements Document; and
- Updates to the NAS Requirements Document.

Key work products are verified and validated according to the FAA AMS Verification and Validation Guidelines before the CRD readiness decision.

2.3.3 Who Does It? Revised 4/2013

2.3.3.1 Service Analysis and Strategic Planning Revised ~~1/2015~~4/2017

Organization(s)	Responsibilities
Service organizations	• Conduct service analysis • Prepare preliminary shortfall analysis reports • Prepare EA change notices, products, and amendments
Advanced Concepts and Technology Development Office (ANG-C), NextGen Lifecycle Integration Office (ANG-D)	• Assists NAS service organizations when preparing service analysis outputs and products
Office of Information & Technology, ~~Strategy & Performance~~Solution Delivery Service, Solution Strategy Divison, EA ~~Division (non-NAS~~Branch (Mission Support)	• Assists ~~non-NAS service~~Mission Supportservice organizations when preparing service analysis outputs and products
Lines of Business	• Prioritize LOB service shortfalls and new ideas • Determine whether a service shortfall impacts the National Airspace System • Work with the Technical Review Board to time-phase operational improvements and operational sustainments in the NAS architecture roadmaps
Technical Review Board	• Works with the lines of business to time-phase operational improvements and operational sustainments in the NAS architecture roadmap

Architecture Review Board	□ Works with the lines of business to prioritize ~~non-NAS~~Mission Support service shortfalls and needs
FAA Enterprise Architecture Board	□ Manages the FAA Enterprise Architecture

2.3.3.2 NAS ConOps Change Development and Decomposition Revised 4/2013

Organization(s)	Responsibilities
Service organization with shortfall/concept, Advanced Concepts and Technology Development Office (ANG-C), NextGen Lifecycle Integration Office (ANG-D)	□ Develop information needed to assess impact of shortfall/concept on the NAS ConOps
Service organization with shortfall/concept, Advanced Concepts and Technology Development Office (ANG-C), Investment Analysis and Planning (IP&A)	□ Develop and validate shortfalls and new concepts technically, operationally, strategically, and financially
Advanced Concepts and Technology Development Office (ANG-C), CSG, service organization with shortfall/concept	□ Present shortfall/concept to the NextGen Management Board for inclusion in the NAS ConOps
NAS Systems Engineering Services Office (ANG-B), Advanced Concepts and Technology Development Office (ANG-C), NextGen Lifecycle Integration Office (ANG-D)	□ Document shortfall as operational improvements or sustainments in the NAS ConOps
ANG-B/C/D, PMO/LOB	□ Determine need for new operational capability
ANG-C, ANG-5, PMO/LOB, IP&A	□ Develop operational capability business case □ IP&A reviews the business case for the Joint Resources Council
ANG-C, ANG-5, PMO/LOB	□ Contribute to and participate in the decision to create a new operational capability

ANG-C/D, PMO/LOB	Determine the need for a capture team to plan and oversee a new operational capability
ANG-C/D, PMO/LOB, operating organization	Contribute to and establish a capture team
ANG-C, AJV-7, LOBs, service organizations	Decompose operational improvements and sustainments in the NAS ConOps into operational requirements and investment increments
ANG-B/C/D, operating organization, capture team (if applicable)	Decompose NAS operational requirements into NAS functional and performance requirements

2.3.4 Who Approves? Revised 4/2013

2.3.4.1 Service Analysis and Strategic Planning Revised 4/2013

Artifact	Approval Authority
Preliminary shortfall analysis	NextGen Lifecycle Integration Office, Director of the service organization with the need
Enterprise architecture products and amendments	FAA Enterprise Architecture Board
Plan for concept and requirements definition	Vice Presidents (ATO) or Directors (non-ATO) of the service organization with the service need and the operating service organization and the FAA Enterprise Architecture Board chairperson
FAA Enterprise Architecture	Joint Resources Council

2.3.4.2 NAS ConOps Change Development and Decomposition Revised 4/2013

Artifact	Approval Authority
NAS ConOps	NextGen Management Board
Operational Capability Business Case	NextGen Systems Analysis and Modeling (ANG-5)
Operational capability	NextGen Management Board (JRC concurs)
Capture team	NextGen Management Board
Operational Capability Integration Plan	NextGen Management Board
NAS Operational Requirements Document	ATO Operational Concepts, Validation & Requirements (AJV-7)
NAS Requirements Document	NAS Systems Engineering Service (ANG-B)

2.3.5 Concept and Requirements Definition Readiness Decision Revised 4/2013

The concept and requirements definition readiness decision occurs when an enterprise architecture roadmap indicates action must be taken to address a critical service shortfall or opportunity. At this decision, the FAA Enterprise Architecture Board verifies: (1) the service shortfall, operational improvement, or operational sustainment is in an enterprise architecture roadmap; and (2) planning and resources for concept and requirements definition are in place. The readiness decision is the gateway between service analysis and strategic planning and concept and requirements definition.

2.3.5.1 Entrance Criteria **Revised 4/2013**

The following are required for the concept and requirements definition readiness decision:

- Service shortfall, operational improvement, or sustainment is in an enterprise architecture roadmap and represents a compelling need of the FAA; and the
- Plan for concept and requirements definition is approved by the FAA Enterprise Architecture Board.

2.3.5.2 Decision Actions **Revised 4/2013**

The FAA Enterprise Architecture Board makes the decision to enter concept and requirements definition.

Section Revised:
2.4 Concept and Requirements Definition

Acquisition Management Policy - (~~1/2017~~4/2017)

2.4 Concept and Requirements Definition Revised 10/2015

All investment opportunities that require funding outside the scope of an approved acquisition program baseline undergo concept and requirements definition. This includes upgrades or replacements to existing capability without approved investment funding.

Concept and requirements definition translates priority operational needs in the enterprise architecture into preliminary requirements and a solution concept of operations for the capability needed to improve service delivery. It also quantifies the service shortfall in sufficient detail for the definition of realistic preliminary requirements and the estimation of potential costs and benefits. Finally, concept and requirements definition identifies the most promising alternative solutions able to satisfy the service need, one of which must be consistent with the conceptual framework in the enterprise architecture.

Planning for concept and requirements definition begins when a roadmap in the enterprise architecture specifies action must be taken to address a priority service or infrastructure need. These needs typically relate to existing or emerging shortfalls in the "as is" architecture or essential building blocks of the "to be" architecture. Should a service organization wish to pursue an investment opportunity not in an enterprise architecture roadmap, it must first develop architectural change products and amendments and get endorsement from the FAA Enterprise Architecture Board and approval by the Joint Resources Council.

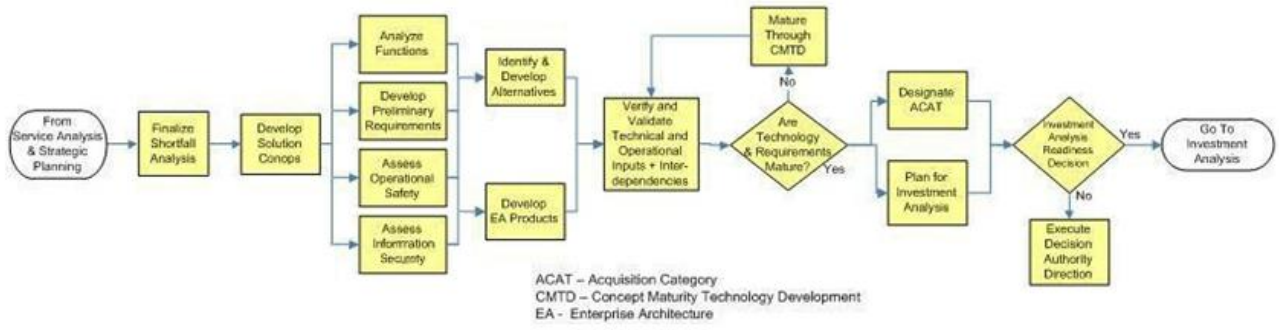
The FAA may undertake research activity or employ research by other agencies or industry to define the operational concept, develop preliminary requirements, demonstrate and refine computer-human interfaces, reduce risk, or achieve customer buy-in to potential solutions to service need.

When the investment initiative entering concept and requirements definition is an element of an operational capability (NAS only), the capture team responsible for achieving the operational capability (if established) participates in and contributes to CRD activity. The capture team is populated with representatives from each service team or program office that will provide an increment of the overall operational capability. These team members ensure all preliminary alternatives emerging from concept and requirements definition for each investment increment fit within the strategy for obtaining the capability and can provide the necessary performance and functionality.

A nonmateriel solution that emerges during concept and requirements definition may proceed to solution implementation upon approval of implementation and resource planning, provided it satisfies the need, can be achieved within approved budgets, and is acceptable to users and customers. This determination is made by the Vice President or Director of the service organization with the service need with the concurrence of the FAA Enterprise Architecture Board.

The key activities of concept and requirements definition are shown in Figure 2.4-1. They apply to all investment initiatives seeking investment funding, whether a stand-alone investment initiative or an element of a complex operational capability.

Figure 2.4-1 Key Activities of Concept and Requirements Definition



2.4.1 What Must Be Done Revised ~~10/2015~~4/2017

NOTE: The plan for concept and requirements definition must be approved by the Vice Presidents (ATO) or Directors (non-ATO) of the service organization with the service need and the operating service organization and by the FAA Enterprise Architecture Board chairperson before the start of any CRD activity (see AMS Section 2.3.1). Roadmap planning in the enterprise architecture specifies when concept and requirements definition activity must begin.

- **Finalize Shortfall Analysis.** The service organization or program office updates, refines, and quantifies the preliminary shortfall identified during service analysis in sufficient detail to serve as the basis for (1) clearly understanding the nature, urgency, and impact of the service need; (2) defining preliminary requirements; (3) determining realistic and economic alternative solutions; and (4) quantifying likely program costs and benefits.
- **Develop Solution Concept of Operations.** The solution concept of operations describes how users will employ the new capability within the operational environment and how it will satisfy service need. The solution ConOps defines the roles and responsibilities of key participants (e.g., controllers, maintenance technicians, pilots); explains operational issues that system engineers must understand when developing requirements; identifies procedural issues that may lead to operational change; and establishes a basis for identifying alternative solutions and estimating their likely costs and benefits. More than one solution concept of operations may be required if proposed alternative solutions differ significantly from each other.
- **Analyze Functions.** The service organization or program office translates stakeholder needs in the shortfall analysis, solution concept of operations, and NAS Requirements Document (NAS only) into high-level functions that must be obtained to achieve the desired service outcome. These are then decomposed into sequentially lower level functions. For NAS investment initiatives, this decomposition may have been done during service analysis when operational improvements and sustainments in the NAS ConOps were decomposed into functional and performance requirements and investment increments.
- **Perform Preliminary Information System Security (ISS) Assessment.** Service organizations assess the investment initiative to determine: (1) ISS risk factors for input to the ACAT determination, (2) ISS requirements for the preliminary program requirements document, (3) a rough ISS cost estimate for each alternative solution, and (4) a rough

estimate of annual operational benefits gained from implementing security requirements.

- **Develop Preliminary Requirements.** The service organization prepares preliminary requirements in consultation with the NAS Systems Engineering Services organization (NAS) or the Office of Information & Technology, ~~Strategy & Performance~~Solution Delivery Service, ~~EA~~ Solution Strategy Division ~~(non-NAS~~, EA Branch (Mission Support). Preliminary requirements specify only function and performance, and do not define a solution. They must be expressed such that the degree to which different solutions satisfy them can be measured and evaluated. Research and analysis or even prototyping during service analysis may be necessary to define preliminary requirements adequately. When the investment increment is an element of an operational capability, preliminary program requirements must be derived from and traceable to operational capability requirements, when applicable.
- **Identify and Develop Alternatives.** The service organization or program office surveys the marketplace to identify feasible and economic solutions. Both material and non- material alternatives are evaluated. One candidate solution must be the hypothesized "best" alternative in the enterprise architecture. Key factors are safety, security, operational cost efficiencies, technological maturity, and impact on the workforce and enterprise architecture. Alternatives should be qualitatively different from each other. Low risk, cost-effective, and operationally suitable commercial or non-developmental solutions are preferred. Alternatives may not meet 100 percent of preliminary requirements. Rough lifecycle costs are developed for each alternative and compared to the monetized shortfall as a basis for determining whether it should be retained or eliminated from consideration. Rough lifecycle costs are also calculated for sustaining the legacy case in service. When a new capability involves information processing and storage, use of cloud computing is considered and results of the cloud suitability assessment are documented.
- **Assess Operational Safety.** The service organization works with ATO Safety and Technical Training to assess operational safety of the proposed initiative. This assessment identifies, assesses, and documents operational hazards and risks associated with alternative solutions. No alternative is pursued whose operational risk cannot be mitigated to an acceptable level at affordable cost.
- **Develop Enterprise Architecture Products.** The service organization engages with the appropriate architecture organization to develop required products and amendments. These include the operational (business rule) and systems (engineering) view families.
- **Verify and Validate Technical and Operational Inputs and Interdependencies.** Key technical and operational work products are verified and validated to be complete and mature as the basis for proceeding to the investment analysis readiness decision. This includes the solution ConOps, preliminary requirements document, safety and security risk assessments, architecture products, and interdependencies with other investment increments.
- **Are Technology and Requirements Mature?** NAS Systems Engineering Services (NAS) or Office of Information & Technology, ~~Strategy & Performance~~Solution Delivery Service, ~~EA~~ Solution Strategy Division ~~(non-NAS~~, EA Branch (Mission Support) evaluates preliminary requirements and the technology base of alternative solutions to ensure they are sufficiently mature for further progression in the AMS lifecycle management process. The objective is to have only low-risk investment initiatives entering investment analysis and solution implementation. Additional research and development may be prescribed when technological

risk is too high or when requirements are not mature or the investment initiative may be deferred or terminated.

- **Mature Through Concept Maturity and Technology Development (NAS only).** The Technical Review Board recommends further development for NAS initiatives when technological risk is too great or requirements are not sufficiently known. Prescribed activity may take the form of simulation, analysis, operational prototyping, or field demonstration in a controlled operational environment. See the Guidelines for Concept Maturity and Technology Development for more information.
- **Designate Acquisition Category.** The service team or program office prepares an acquisition category determination request based on preliminary financial data, as well as subjective assessments of complexity, risk, political sensitivity, safety, and security. The request is vetted through NAS Systems Engineering Services (NAS) or Office of Information & Technology, ~~Strategy & Performance~~Solution Delivery Service, ~~EA~~ Solution Strategy Division ~~(non-NAS,~~ EA Branch (Mission Support) and submitted to the Acquisition Executive Board for a designation.
- **Plan for Investment Analysis.** The plan for investment analysis: (1) defines scope and assumptions; (2) describes alternatives and their associated rough lifecycle costs; (3) describes planned activities and specifies how tasks will be accomplished; (4) defines output and exit criteria; (5) establishes a schedule for completion; (6) defines roles and responsibilities of participating organizations; and (7) estimates resources needed to complete the work. By signing the plan for investment analysis, the organizations that will conduct the analysis agree to provide the resources necessary to complete the work. This activity includes development of the investment analysis readiness decision package and pre-briefings to decision-makers.

2.4.2 Outputs and Products **Added 4/2013**

- Solution concept of operations;
- Preliminary program requirements document;
- Architecture products and amendments;
- Realistic alternatives with rough cost estimates;
- Detailed shortfall and functional analyses;
- Safety risk assessment;
- Shortfall analysis report;
- Acquisition category designation request; and
- Investment analysis plan.

Key work products are verified and validated according to the FAA AMS Verification and Validation Guidelines before the investment analysis readiness decision.

2.4.3 Who Does it? ~~Added 1/2015~~**Revised 4/2017**

Organization(s)	Responsibilities
Implementing service	• Leads and completes all activities and outputs of concept and

organization	requirements definition unless otherwise specified in the plan for CRD □ Prepares the acquisition category designation request
NAS Systems Engineering Services Office (ANG-B), Office of Information & Technology, ~~Strategy & Performance~~Solution Delivery Service, ~~EA~~ Solution Strategy Division ~~(non-NAS,~~ EA Branch (Mission Support)	□ Provides engineering services in such areas as specialty engineering, safety and security analysis, and architecture products □ Validates technical and operational products of CRD □ Assesses maturity of solution technology and requirements
NAS Lifecycle Integration Office (ANG-D), Program Management Office, lines of business, operating service organization, Office of Information & Technology, ~~Strategy & Performance~~Solution Delivery Service, ~~EA~~ Solution Strategy Division ~~(non-NAS,~~ EA Branch (Mission Support)	□ Assists the implementing service organization in completing CRD activities □ Maintains guidance and acquisition aids for service analysis and concept and requirements definition
Capture team (NAS only)	• Monitors and oversees CRD activity when the investment initiative is an element of an operational capability • Ensures alternatives can provide the performance and functionality necessary to achieve the overall operational capability

Detailed roles and responsibilities of participating organizations for each CRD activity and output or product are found in the Service Analysis and Concept and Requirements Definition Guidelines.

2.4.4 Who Approves? Added 4/2013

Artifact	Approval Authority
Acquisition category	Acquisition Executive Board approves, JRC concurs
CRD outputs and products	Approval authorities are found in the Service Analysis and Concept and Requirements Definition Guidelines.

2.4.5 Investment Analysis Readiness Decision **Added 4/2013**

The investment analysis readiness decision determines whether the solution ConOps, preliminary requirements, architecture products and amendments, and preliminary alternatives are sufficiently mature to warrant entry into investment analysis. The decision is made within context of all ongoing and planned investment activities to sustain and improve service delivery. It ensures proposals for new investment are consistent with overall corporate needs and planning.

2.4.5.1 Entrance Criteria **Added 4/2013**

The following are required for the investment analysis readiness decision:

- Preliminary program requirements document;
- Realistic alternative solutions;
- Architecture products and amendments;
- Approved shortfall analysis report;
- Signed plan for investment analysis.

The full list of work products that may be required for the investment analysis readiness decision is found on the JRC Secretariat website.

2.4.5.2 Joint Resources Council Actions **Added 4/2013**

The Joint Resources Council makes the decision to enter investment analysis.

Section Revised:
Appendix A: Roles and Responsibilities

Acquisition Management Policy - (~~1/2017~~4/2017)

Appendix A: Roles and Responsibilities Revised ~~1/2017~~4/2017

Councils and Boards

JOINT RESOURCES COUNCIL

- Approves the FAA investment portfolio each year as part of the budget submission process;
- Reviews and approves the FAA enterprise architecture each year;
- Concurs jointly with the NextGen Management Board on the establishment of new operational capabilities;
- Reviews updates to the NAS ConOps and works with the NextGen Management Board to resolve any issues or concerns;
- Makes investment decisions and oversees execution of investment programs;
- Establishes investment programs and assigns execution to a service organization;
- Baselines program requirements for investment programs in the final program requirements document;
- Approves and baselines all required AMS program documents (i.e., program requirements document, acquisition program baseline, business case, and implementation strategy and planning document);
- Commits the FAA to full funding of approved investment programs or program segments;
- Identifies any future corporate decisions and levels of empowerment for the service organization during solution implementation for investment programs;
- Makes acquisition program baseline change decisions that alter program performance, cost, and schedule baselines during solution implementation for investment programs;
- Reviews and approves FAA RE&D and F&E budget submissions each year prior to review and approval by the Administrator and submission to the Office of the Secretary of Transportation and reviews the OPS appropriation. The Administrator approves the OPS budget before submission to the Office of the Secretary of Transportation;
- Makes investment program production and in-service decisions or assigns approval authority to senior management; and
- Conducts acquisition quarterly program reviews to manage ongoing investment programs, including operational assets; and
- Designates investment programs for TechStat reviews.

The Joint Resources Council has the following core members:

- Acquisition Executive;
- Chief Operating Officer;
- Chief Information Officer;
- Chief Financial Officer;

- General Counsel;
- Associate Administrator for Aviation Safety;
- Associate Administrator for Airports;
- Assistant Administrator for NextGen;
- Assistant Administrator for Policy, International Affairs, and Environment; and
- Director, Joint Planning and Development Office.

The following members attend Joint Resource Council meetings when the decision concerns their organizational responsibilities:

- Associate Administrator for Commercial Space Transportation.

ACQUISITION EXECUTIVE BOARD

- Assists and supports the Acquisition Executive and Joint Resources Council by reviewing, authorizing, and overseeing development and implementation of acquisition management policy, process, practices, procedures, and tools at all organizational levels;
- For authorized change proposals, charters and provides resources for cross-functional work groups to conduct feasibility and cost/benefit analyses for proposed policy, guidance, practice, and procedure changes;
- Directs, controls, and approves all compliance processes associated with execution of any aspect of AMS; and
- Directs and oversees the Acquisition System Advisory Group.

NEXTGEN MANAGEMENT BOARD

- Approves updates to NAS Concepts of Operations;
- Approves NAS Segment Implementation Plan;
- Approves NAS operational capabilities including goals, objectives, and performance targets;
- Approves alignment of NAS investments to operational capabilities;
- Approves capture teams for operational capabilities;
- Conducts portfolio review for operational capabilities; and
- Approves Operational Capability Integration Plans.

OPERATIONS GOVERNANCE BOARD (OGB)

- Reviews and approves non-National Airspace System (~~non-NAS~~Mission Support), Operations-funded capital investments;
- May recommend that Contracting Officers not enter into contracts related to applicable investments;
- May request JRC concurrence or recommend JRC review for individual investments;
- Oversees a risk review of proposed investments in coordination with AIT and other functional experts; and

- Provides status to the JRC and other agency executive level boards and organizations on the results of ~~the non-NAS~~theMission Support, Operations-funded capital investments brought before the Operations Governance Board.

The members of the Operations Governance Board will be:

- Director of Acquisition & Contracting (Chair) AAQ-1
- Director of Investment Planning & Analysis (IP&A) AFI-1
- Director of Enterprise Program Management Services (EPMS) AEM-1
- Director of Program Control and Integration AJM-1
- Aviation Safety AIR-2
- Assistant Chief Counsel AGC-500
- Customer Representative – As determined by the OGB Chair

FAA ENTERPRISE ARCHITECTURE BOARD

- Governs and administers the FAA enterprise architecture;
- Ensures the FAA adheres to Federal statutory and regulatory requirements regarding enterprise architecture;
- Aligns information technology decisions with agency business and investment strategies;
- Minimizes redundancy, fosters standardization, and promotes reuse of information technology, data, and business assets;
- Provides architecture roadmaps and decision-point recommendations to the JRC for approval;
- Approves operational improvements and operational sustainments for inclusion in the enterprise architecture;
- Communicates and champions enterprise architecture throughout FAA; and
- Approves roadmaps that guide the agency toward the target enterprise architecture; and
- Endorses readiness for concept and requirements definition.

ARCHITECTURE REVIEW BOARD

- Works with service organizations and program offices to prioritize and time-phase new operational improvements and operational sustainments within the ~~non-NAS~~Mission Support architecture roadmap.

TECHNICAL REVIEW BOARD

- Works with service organizations and program offices to prioritize and time-phase new operational improvements and operational sustainments within the NAS architecture roadmap.

Secretariats

JRC EXECUTIVE SECRETARIAT

- Supports and has a dotted line reporting relationship with the FAA Acquisition Executive;
- Develops, maintains and obtains JRC member signatures on the JRC Charter;
- Manages the investment decision-making process for all investment decisions;
- Facilitates the efforts of service organizations seeking an investment decision to ensure timely and effective investment decision-making;
- Manages the readiness process which uses criteria based on the AMS policy to evaluate the readiness of an investment initiative seeking an investment decision prior to placing it on the JRC meeting agenda to obtain a decision;
- Manages the electronic investment decision process;
- Obtains JRC member signatures on the investment decision documents after approval of a final investment decision;
- Maintains the official repository of investment decision documentation, records of decision, meeting minutes and assigned action items;
- Develops and maintains investment decision guidance documents and processes;
- Coordinates JRC meeting dates, agenda, and arranges logistics; and
- Prepares records of decision from JRC investment decision meetings and acquisition quarterly program reviews.

OPERATIONS GOVERNANCE BOARD SECRETARIAT

- Manages the decision-making process for ~~all Non-NAS~~allMission Support, Ops Funded assets the OGB reviews;
- Facilitates the efforts of service organizations and the Acquisition Review Team to ensure timely and effective decision-making;
- Maintains the official repository of OGB decision documentation, records of decision, meeting minutes and assigned action items;
- Develops, maintains and obtains OGB member signatures on the OGB Charter, as well as coordinating OGB meeting dates, agenda, and arranges logistics; and
- Receives and reviews initial intake forms, and provides a governance path recommendation to the OGB.

ACQUISITION EXECUTIVE BOARD SECRETARIAT

- Develops, maintains and obtains JRC member signatures on the AEB Charter;
- Coordinates AEB meeting dates, agenda, and arranges logistics;
- Receives, reviews and tracks ACAT determination requests;
- Receives and distributes to AEB members proposed changes to acquisition management policy, process, practices and procedures;
- Facilitates the efforts of FAA organizations to ensure timely approvals to proposed policy, guidance, practice and procedure changes;
- Maintains the official repository of AEB decision documentation, records of decision, meeting minutes and assigned action items.

IN-SERVICE DECISION SECRETARIAT

- Manages the deployment planning process for the Joint Resources Council;
- Coordinates with the JRC executive secretariat to verify that readiness criteria for a final investment decision have been satisfied;
- Facilitates the efforts of service organizations to ensure timely and effective in-service decision-making;
- Uses AMS-based criteria to evaluate the status of each program seeking an in-service decision before scheduling the program for a stakeholder and in-service decision meeting;
- Prepares records of decision; and
- Tracks in-service decision action plans until closure.

Offices and Executives

ASSOCIATE AND ASSISTANT ADMINISTRATORS AND THE CHIEF OPERATING OFFICER

- Coordinate and integrate activity across line-of-business service organizations to ensure resources are directed at priority FAA strategic and performance goals and to ensure there is no overlap or redundancy;
- Require service analysis for designated services (e.g., en-route service, terminal service, regulatory service, certification service) within the line of business or staff office;
- Provide staff support to concept and requirements definition and investment analysis activity for service needs within the line of business or staff office;
- Implement non-material solutions to a service need that emerges any time during service analysis or investment analysis; and
- Oversee investment program execution by service organizations within the line of business or staff office.

CHIEF FINANCIAL OFFICER

- Jointly approves the acquisition program baseline for investment programs with other Joint Resource Council members;
- Serves as a core member of the Joint Resources Council; and
- Approves OMB Major IT Business Cases for designated capital investments before submission to the Department of Transportation and Office of Management and Budget.

CHIEF INFORMATION OFFICER

- Serves as a core member of the Joint Resources Council;
- Chairs the Information Technology Shared Services Committee;
- Approves OMB Major IT Business Cases for designated capital investments before submission to the Department of Transportation and Office of Management and Budget;
- Jointly approves the acquisition program baseline for investment programs with other Joint

Resources Council members; and
- Oversees the enterprise architecture.

ACQUISITION EXECUTIVE

- Manages AMS policy;
- Chairs the Joint Resources Council;
- Approves acquisition category designations and AMS tailoring or waivers;
- Chairs acquisition quarterly program reviews; and
- Approves OMB Major IT Business Cases for designated capital investments before submission to the Department of Transportation and Office of Management and Budget.

OFFICE OF THE CHIEF COUNSEL

- Represents FAA legal interests on product or service teams engaged in the acquisition of goods and services;
- Exercises independent professional judgment, advises teams on relevant legal, governmental, and business issues, and promotes the legality and integrity of acquisition actions;
- Represents the FAA in connection with procurement-related litigation, alternative dispute resolution, and other matters; and
- Serves as core member of the Joint Resources Council.

VICE PRESIDENTS (ATO) AND SERVICE DIRECTORS (NON-ATO)

- Responsible and accountable for the delivery of services by service organizations under their management;
- Deliver status briefings for their investment portfolio to the Joint Resources Council at acquisition quarterly program reviews;
- Approve plans for concept and requirements definition and assign necessary human resources;
- Make the decision to enter concept and requirements definition after all entrance criteria are satisfied;
- Assess operational assets annually at a minimum to determine whether they should continue in service or be modified, upgraded, or removed from service;
- Approve plans for investment analysis and assign necessary human resources;
- Approve the program requirements document and the implementation strategy and planning document; and
- Oversee the annual update and submission of the OMB Major IT Business Case for designated investment programs.

SOURCE SELECTION OFFICIAL

- Assures source evaluation team competence, cohesiveness, and effectiveness;
- Assigns responsibility to a source evaluation team member to mark all source selection sensitive

information with the designation "source selection sensitive information";
- Approves source evaluation plans and assures the evaluation conforms to the stated evaluation criteria; and
- Makes down-select decisions and assumes full authority to select the source for award.

CONTRACTING OFFICER

- Serves as the source selection official for procurements not subject to the JRC process;
- Ensures, when applicable, conflict of interest documentation is obtained from the source selection official and all source evaluation team members; with legal counsel, determines if any actual or apparent conflict of interest exists and if so resolves or mitigates the conflict;
- Ensures source evaluation team members are briefed on sensitivities of the source selection process, prohibition against unauthorized disclosure of information (including their responsibility to safeguard proposals and any documentation related to the source selection team proceedings), and requirements concerning conflict of interest;
- Ensures source selection official and source evaluation team members provide nondisclosure of information statements;
- Coordinates communications with industry, controls all written documentation issued to industry, and conducts all debriefings;
- Participates during screening, selection, and debriefing phases of source selection to ensure fair treatment of all offerors;
- Issues letters, public announcements, screening information requests and amendments, and other procurement documents;
- Ensures the contract is signed by a contractor representative with the authority to bind the contractor; with legal counsel, ensures all contractual documents comply with applicable laws, regulations, and policies; and
- Executes, administers, and terminates contracts and makes related determinations and decisions that are contractually binding.

OFFICE OF DISPUTE RESOLUTION FOR ACQUISITION

- FAA Administrator's impartial administrative forum for adjudication of bid protests and contract disputes arising under the AMS;
- Provides dispute resolution services to the FAA and its private business partners, implementing FAA policy to utilize Alternative Dispute Resolution (ADR) to the maximum extent practicable;
- Conducts a streamlined adjudication process for matters un-resolvable through ADR;
- Provides "Findings and Recommendations", and issues orders and decisions supported by the case record and law, on behalf of the FAA Administrator;
- Promulgates and operates in accordance with rules of procedure; and
- Recommends changes to the Acquisition Management System.

OFFICE OF INFORMATION & TECHNOLOGY, STRATEGY & PERFORMANCE SERVICE, INVESTMENT PORTFOLIO & CPIC BRANCH

- Provides process, guidance, training, and consultation to service organizations in the preparation of OMB Major IT Business Cases;
- Independently scores OMB Major IT Business Cases and provides feedback to service organizations and the JRC executive secretariat for designated investment programs;
- Consolidates and reports major program schedule and cost performance data, variance analysis, and corrective action plans to the Information Technology Shared Services Committee, Department of Transportation, and Office of Management and Budget; and
- Conducts earned value management assessments for programs requiring submission of an OMB Major IT Business Case to the Office of Management and Budget and ensures earned value management transition plans for those programs are implemented effectively.

INVESTMENT PLANNING AND ANALYSIS OFFICE

- Provides leadership and expertise in the preparation of business cases for JRC decisions;
- Advises investment analysis teams during service analysis, concept and requirements definition, and investment analysis;
- Provides leadership and expertise in the exploration, development, and analysis of alternatives;
- Evaluates the business case and supporting documentation prior to investment decisions;
- and
- Develops and maintains policy, standards, guidance, and templates for investment analysis and business case preparation.

Organizations and Committees

NEXTGEN ORGANIZATION

- Manages the corporate research budgeting process;
- Coordinates annual development of the National Aviation Research Plan;
- Defines research plan selection, management, and evaluation criteria for research activities in support of NextGen;
- Interfaces with Office of the Secretary of Transportation, Office of Management and Budget, Congress, trade organizations, industry, international organizations, and other government organizations for FAA-level research issues; and
- Provides test and evaluation services.

NAS SYSTEMS ENGINEERING SERVICES ORGANIZATION

- Performs corporate-level service analysis for the NAS;
- Oversees the NAS architecture;
- Develops and maintains tools for conducting service analysis;
- Work with both corporate strategic planning and service organizations to ensure consistency between service planning and the long-range strategic direction of the FAA;

- Works with service organizations to translate user needs into a sequenced and traceable architecture that defines the functions and sub-functions necessary to achieve intended services or operational capability;
- Works with service organizations to determine realistic alternative solutions to service need and assess their impact on the NAS architecture;
- Works with service organizations to conduct service analysis and incorporate associated recommendations into the NAS architecture; and
- Works with service organizations to develop the program requirements document.

NEXTGEN LIFECYCLE INTEGRATION ORGANIZATION

- Coordinates service analysis activity across service organizations to ensure alignment with FAA strategic and performance goals and to eliminate redundant activity, duplicate benefits, service gaps, and service overlap;
- Develops and maintains standard guidance for conducting service analysis and concept and requirements definition;
- Assists service organizations in establishing a service analysis capability and conducting service analysis;
- Leads planning and activities for concept and requirements definition;
- Ensures the requirements, policy, and procedures identified in the AMS and FAST are followed by stakeholders;
- Provides engineering analysis and recommendations to ensure technical integration and integrity is consistent with financial and policy goals, outcomes, and commitments;
- Ensures implementation efforts are harmonized with operations and stakeholder priorities
- Ensures risks are addressed collaboratively to facilitate delivery of operational capabilities and benefits; and
- Develops, maintains, communicates, and supports the execution of enterprise-wide planning artifacts that describe the lifecycle of the National Airspace System.

INFORMATION TECHNOLOGY RESEARCH AND DEVELOPMENT ORGANIZATION

- Performs corporate-level ~~non-NAS~~Mission Support service analysis and coordinates service activity across service organizations to ensure alignment with FAA strategic and performance goals as well as to eliminate redundant activity, service gaps, and duplicate benefits;
- Oversees the ~~non-NAS~~Mission Support architecture;
- Develops and maintains tools and standards for conducting ~~non-NAS~~Mission Support service analysis;
- Works with corporate strategic planning and service organizations to ensure consistency between service planning and long-range strategic planning of the FAA;
- Works with service organizations to translate user needs into a sequenced and traceable ~~non-NAS~~Mission Support architecture that defines the functions and sub-functions necessary to achieve intended services or operational capability;
- Leads planning and activity for concept and requirements definition and works with non- NAS

service organizations to define program requirements, determine realistic solutions to service need, and assess their impact on the ~~non-NAS~~Mission Support architecture;
- Ensures policy and requirements identified in AMS and FAST are followed by ~~non-NAS~~Misison Support stakeholders;
- Provides engineering analysis and recommendations to ensure technical integration and integrity is consistent with financial and policy goals, outcomes, and commitments; and
- Ensures implementation efforts are harmonized with operations and stakeholder priorities.

OFFICE of INFORMATION & TECHNOLOGY ~~SHARED SERVICES COMMITTEE,~~ SOLUTION DELIVERY SERVICE, SOLUTION STRATEGY DIVISION, EA BRANCH

- Approves ~~non-NAS~~Mission Support information technology and chargeback mechanism;
- Approves new ~~non-NAS~~Mission Support information technology projects for submission to the Joint Resources Council for funding;
- Oversees performance of information technology investments; and
- Reviews information technology shared service operational performance against baseline measures and tracks cost savings against operational baselines.

SERVICE ORGANIZATIONS

- Plan and manage resources as assigned by the Joint Resources Council to deliver services within their service area of responsibility;
- Conduct service analysis for assigned services and plan service delivery;
- Maintain consistency between service planning and FAA strategic and performance goals;
- Work with the appropriate systems engineering organization to develop the solution concept of operations and requirements, as required;
- Work with the appropriate systems engineering and operating organizations to determine realistic alternative solutions to service needs; and
- Identify, justify, obtain, and manage research, study, and analysis within their service area of responsibility.

Teams and Groups

CAPITAL INVESTMENT TEAM

- Assesses the business justification, budget affordability, and priority of investment initiatives and provides findings to the Joint Resources Council before investment decisions;
- Performs corporate budget formulation and execution, including budget impact assessments, and recommendations of funding offsets and reprogramming due to program baseline changes, marks/pass-backs from the Office of the Secretary of Transportation, Office of Management and Budget, and Congress; and
- Establishes and maintains an up-to-date prioritization of all on-going and proposed investment

programs for use in budget impact assessments and determination of offsets.

INDEPENDENT SAFETY ASSESSMENT TEAM

- Conducts independent operational assessment for programs as directed by the Vice President of ATO safety and Technical Training.

PRODUCT OR SERVICE TEAM

- Develops, procures, and delivers products or services for users or customers;
- Manages the acquisition program baseline of investment programs it is implementing and reports breaches to management;
- Updates the OMB Major IT Business Case annually for designated programs;
- Assists in development of program requirements recorded in the program requirements document;
- Develops cost and schedule baselines during final investment analysis for the solution selected for implementation;
- Acquires new or improved capability for services and products throughout their lifecycle;
- Keeps planning current during solution implementation in the implementation strategy and planning document;
- Supports the conduct of post-implementation reviews;
- Ensures coordination and obtains input from subject-matter experts in critical functional disciplines. These disciplines vary by the type of program, but typically include: management of requirements; test and evaluation; deployment planning; logistics support; procurement planning; real property; acquisition, management, and disposal; configuration management; earned value management; human factors; environmental, occupational safety and health, and energy considerations; information technology; system engineering; security; system safety management; spectrum management; risk management; regulation and certification; telecommunications. The service organization is responsible to ensure that all relevant disciplines have been contacted whether or not they appear in the above list.

SOURCE EVALUATION TEAM

- Drafts all screening information requests;
- Formulates the source evaluation plan;
- Reviews lessons-learned reports that provide meaningful insight into the procurement;
- Ensures an in-depth review and evaluation of each submitted screening document against
- FAA requirements and evaluation criteria;
- Prepares the source evaluation report (including recommendations, if requested) so the source selection official may make down-selection and/or award decisions, and if requested by the source selection official, prepares documentation for the decision rationale;
- Oversees all procedural and administrative aspects of the procurement;
- Selects advisors to assist the team in its evaluation, if required;
- Participates in all debriefings; and

- Prepares a lessons learned memorandum after completing the source selection.

CAPTURE TEAM

- Oversees and coordinates implementation of assigned investment increments required to obtain the assigned operational capability; and
- Identifies operational capability risks and issues and recommends corrective action to the portfolio manager.

CONCEPT STEERING GROUP

- Coordinates activity to develop and validate new concepts and ideas during service analysis; and
- Facilitates the review of new ideas and proposed changes to the NAS Concept of
- Operations.

Personnel

PORTFOLIO MANAGER

- Oversees and reports operational capability status to the NextGen Management Board;
- Evaluates operational capability demand against resource constraints;
- Identifies and assesses operational capability risks and recommends corrective actions;
- Suggests trade-offs and recommendations within the operational capability investment increments to the NextGen Management Board; and
- Participates in program reviews and budget build processes for elements of the operational capability.

EARNED VALUE MANAGEMENT FOCAL POINT

- Serves as the FAA earned value management executive agent;
- Assists program managers and business managers to apply earned value management requirements to capital investment programs and contracts;
- Coordinates earned value management activities for FAA with other government agencies and with industry and professional associations; and
- Collects monthly schedule and cost performance data, variance analysis, and corrective action plans for major programs.

PRODUCT OR SERVICE TEAM LEADER

- Serves as the source selection official for procurements subject to the JRC process unless otherwise designated by the Joint Resources Council;

- Serves as spokesperson for the team;
- Guides, encourages, and coaches team members;
- Leads and facilitates team efforts without dominating the process;
- Keeps the team focused on consensus decision-making and ensures individual team members do not dominate team deliberations;
- Ensures all stakeholders are members of the team and that they participate in team decision-making;
- Leads development of cost, schedule, and performance baselines during final investment analysis;
- Determines the management approach for an investment program and applicable contracts based on program size, complexity, risk, and FAA earned value management policy;
- Manages the acquisition program baseline and reports performance information to management, including anticipated or actual breaches with corrective actions or a request for a revised program baseline;
- In consultation with the contracting officer, determines the acquisition strategy for obtaining the selected solution and establishes the appropriate earned value management and reporting applications for each contract;
- Assures FAA program needs are acquired through the appropriate source selection process and assures screening information requests include adequate definition of requirements;
- Assures qualified technical evaluators, if required, assist the source evaluation team in the evaluation; and
- In consultation with the contracting officer, conducts the integrated baseline review, assisted by the contracting officer's representative;